the mathematical gazette

Index to Volume 74: Numbers 467–470 1990

THE MATHEMATICAL ASSOCIATION £1

THE MATHEMATICAL GAZETTE

VOL. 74

MARCH 1990 TO DECEMBER 1990

Nos. 467–470

THE MATHEMATICAL GAZETTE

1990

COMPUTER TYPESET BY S B DATAGRAPHICS LTD, COLCHESTER, ESSEX
PRINTED AND BOUND BY SPOTTISWOODE BALLANTYNE, COLCHESTER AND LONDON

Index
to the
Mathematical Gazette

Vol. 74 1990

No.	Month	Pages
467	March	1–104
468	June	105–210
469	October	211–334
470	December	335–421

Articles — In memoriam
Notes — Correspondence
Problems — Reviews

Articles

Author	Title	Page
Colin Atkinson	A "simple" integral and the repeated logarithm	33
S Boardman, Chris Harrison & Terry Webster	The graph of x^x	132
Maurice N. Brearley	The rocking rigid pendulum	120
Bob Burn	Filling holes in the real line	228
H. Martyn Cundy	The bascule bridge — an unexpected cardioid	124
Michael A. B. Deaking	From Pappus to today	6
J. R. Dennett	Cricket and derangements	2
Tony Gardiner	Triangles and tetrahedra, quadrilaterals and cubes	357
Paul Green & Pamela Liebeck	Bracelets	232
Peter Griffin & John Mason	Walls and windows	260
Vincent G. Hart	Two problems in telegraphy	354
Graham Howlett	Vectors, centres and a touching theorem	26
Bob Johnson	An example of chaotic dynamics	256
Phillip E. Johnson & Billie Ranson	The effect of a traditional secondary school geometry course on problem-solving ability	114
M. C. Jones	The World Cup draw's flaws	335
Nick Lord	The folding box problem	361
Nick Lord	A interception problem	351
Desmond MacHale	What does "mean" mean?	239
Nick MacKinnon	Some thoughts on polyomino tiles	31
Nick MacKinnon (editorial)	The future of the Gazette, and our futures	105

AUTHOR	TITLE	PAGE
Nick MacKinnon	Partitions and the dancing bear	127
Nick MacKinnon	Sophie Germain	346
W. B. Macro	Video tapes	129
John Mason	Difference-divisible sequences	223
K. Robin McLean	Dungeons, dragons and dice	243
John Mills, David Tall & Michael Wardle	A Quartic with a thousand roots	339
Peter Reynolds	Full circle (1990 Presidential address)	211
Anthony C. Robin	Rational approximations	11
Anthony C. Robin	Where shall we meet?	106
Tom Roper	Mathematics and the motion of the human body	19
Nigel H. Scott	On square-rooting matrices	111
Mark Strutt & Adrian Oldknow	An exponential iteration with complex connections	269

Notes

March	74.1–74.12
June	74.13–74.28
October	74.29–74.40
December	74.41–74.52

AUTHOR	No.	TITLE	PAGE
J. C. Appleby	74.48	Rational approximations to irrationals via eigenvalues	378
Syed Asadulla	74.17	Snowflakes and hexagons	145
Martin Beech	74.8	A computer conjecture of a non-serious theorem	50
Sam Boardman	74.36	The convergence of the binomial series	287
T. Bridgeman	74.5	Radial and transverse motion	46
Bob Burn	74.45	The Orton-Flower tessellation	372
Ll. G. Chambers	74.10	A spurious relation between measures of central tendency	54
David Chappell & Christine Straker	74.3	The golden section in mountain photography	43
Frank Clifford	74.37	*e* on a micro	289
Derek Colwell & Jack Gillett	74.49	The optimal orbital plane	379
D. J. Colwell & J. R. Gillett	74.16	Meeting in a tournament	143
Ian Cook	74.6	The Euclidean algorithm and Fibonacci	47
Tony Crilly	74.29	Computer connections	273
Tony Crilly	74.38	Black holes and the gamma functions	291
M. D. Dampier	74.33	The point of intersection of three planes	283
Darrell Desbrow	74.28	Evaluating the probability integral	169
Mark Elliot & Nick Lord	74.26	Radioactive decay series	163

Author	No.	Title	Page
Colin R. Fletcher	74.21	Eisenstein generalised	153
P. Glaister	74.4	Another peek at the golden section	45
P. Glaister	74.14	Times of flight	138
P. Glaister	74.46	Further optimisation problems	374
Rod Haggerty	74.40	The mean value theorem and a counter example	295
Graham Hoare	74.47	Hypercubes and Chebyshev	375
Larry Hoehn	74.32	The golden ratio via Ptolemy's theorem	279
C. R. Holmes	74.35	Imagine the roots of a quadratic	285
Dr. I. R. H. Jackson	74.50	What went wrong?	381
Bob Johnson	74.34	A route to roots	284
Stephen Jones	74.12	Two iteration examples	58
Nick Lord	74.11	From vectors to reversal paradoxes	55
Nick Lord	74.22	Modern proofs of an ancient Egyptian approximation	156
Nick Lord	74.24	Pure mechanics?	160
Nick MacKinnon	74.1	The Starship Enterprise and cyclic hexagons	40
Nick MacKinnon	74.41	A problem from Heron's geometrica	366
Nick MacKinnon	74.30	A strange near-identity	275
Nick MacKinnon & 5Ma	74.9	A lesson on the St. Petersburg paradox	51
Nick MacKinnon & 5Ma	74.27	Another surprising appearance of e	167
Nick MacKinnon & 2Mk & 3Mk	74.25	The Steiner grid problem	161
R. H. MacMillan	74.20	Decibel arithmetic	150
Chris Nash	74.15	Infinite series by reduction formulae	140
Hiroshi Okumura	74.31	Incircles and excircles of right-angled triangles	278
C. F. Parry	74.52	Not Steiner but Fermat	384
Neil Pitcher	74.42	The chain rule enhanced by computer	367
Anthony C. Robin	74.19	What is a sketch?	149
Anthony C. Robin	74.51	A crude but simple approximation to $\tan(x^\circ)$	382
Tom Roper	74.18	Mathematics and the motion of the human body, continued.	146
Rosemary Schmalz	74.44	A "natural" approach to e	370
G. C. Shephard	74.2	Centroids of polygons and polyhedra	42
S. Simons	74.39	Modified iterations	293
Richard Skevington	74.13	Extending Pic's theorem	136
Martin D. Stern	74.23	A mediaeval derivation of the sum of an arithmetic progression	157
D. R. Westbrook	74.7	The desert fox, a variation of the jeep problem	49
Robert M. Young	74.43	On invariant subspaces	368

Reviews

Author	Title	Reviewer	Page
N. I. Akhiezer	The calculus of variations	*Ll. G. Chambers*	191

AUTHOR	TITLE	REVIEWER	PAGE
M. O. Albertson & J. P. Hutchinson	Discrete mathematics with algorithms	*H. C. Williams*	187
R. B. J. T. Allenby & E. J. Redfern	Introduction to number theory with computing	*P. Shiu*	183
Jorges Angeles	Rational kinematics	*C. W. Kilmister*	89
M. A. Armstrong	Groups and symmetry	*Tony Crilly*	79
V. I. Arnold	Contact geometry and wave propagation	*Nick Lord*	333
Assn. of Teachers of Mathematics	Using and applying mathematics	*John Glenn*	386
James Bailey	50 structured mathematical investigations	*Amanda Muckalt & Peter Ransom*	302
A. C. Bajpai, L. R. Mustoe & D. Walker	Engineering mathematics (2nd. edn)	*D. Middleton*	188
David Baker	Facts and figures: a practical approach to statistics	*Vic Prior*	305
S. Balcerzyk & T. Józefiak	Commutative Noetherian and Krull rings	*F. Gerrish*	414
S. Balcerzyk & T. Józefiak	Commutative rings: dimension, multiplicity and homological methods	*F. Gerrish*	414
Edward J. Barbeau	Polynomials	*F. H. C. Oates*	185
N. Baxter, E. Dubinsky & G. Levin	Learning discrete mathematics with ISETL	*W. F. Pollard*	77
John D. Beasley	The mathematics of games	*S. J. Abbott*	330
Karl-Heinz Becker & Michael Dörfler	Dynamical systems and fractals: computer graphics experiments in Pascal	*M. R. Mudge*	315
Niels C. Becker	Analysis of infectious disease data	*Pamela Morris*	92
P. Bénilan, M. Chipot, L. C. Evans & M. Pierre (eds)	Recent advances in non-linear elliptic and parabolic problems	*M. Grinfeld*	414
Bruce C. Berndt (ed)	Ramanujan's notebooks: Part 2	*I. J. Zucker*	95
Alan J. Bishop	Mathematical enculturation: a cultural perspective on mathematics education	*Vic Prior*	100
Martin L. Bittinger & J. Conrad Crown	Mathematics and calculus with applications	*R. W. Whitworth*	178
Gunnar Blom	Probability and statistics: theory and applications	*John Haigh*	193
W. Blum, J. S. Berry, R. Biehler, I. D. Huntley, G. Kaiser-Messmer & L. Profke (eds)	Applications and modelling in learning and teaching mathematics	*K. E. Selkirk*	312

Author	Title	Reviewer	Page
Werner Blum, Mogens Niss & Ian Huntley (eds)	Modelling, applications and applied problem solving	*J. Abram*	312
G. W. Bluman & S. Kunei	Symmetries and differential equations	*D. H. Griffel*	327
Jonathan Borwein & Peter Borwein	A dictionary of real numbers	*Nick Lord*	395
L. Bostock, S. Chandler, A. Shepherd & E. Smith	ST(P) mathematics resource book	*D. R. Whetton*	69
N. Bourbaki	General topology (chapters 1–4)	*Nick Lord*	97
N. Bourbaki	General topology (chapters 5–10)	*Brian H. Denton*	98
N. Bourbaki	Algebra I	*F. Gerrish*	198
N. Bourbaki	Lie groups and Lie algebras (chapters 1–3)	*Nick Lord*	199
W. E. Boyce & R. C. DiPrima	Calculus	*Short notice*	210
James Bradley	Introduction to discrete mathematics	*Rex Watson*	78
T. Bridgeman & G. R. Baldock	Applied mathematics: a course companion	*C. E. Lawes*	179
British Universities Film and Video Council	Viewfinder	*Nick Lord*	396
A. E. Brouwer, A. M. Cohen & A. Neumaier	Distance regular graphs	*I. Anderson*	321
John W. Brown & Donald R. Sherbert	Methods of finite mathematics	*Janet Dangerfield*	186
D. A. Buell	Binary quadratic forms, classical theory and modern computations	*P. Shiu*	321
G. Bujewicz, B. Greenwood, G. Ward & T. Ward	Coursework in GCSE mathematics: a practical guide	*Gordon Habbishaw*	173
J. N. Cederberg	A course in modern geometries	*E. Keith Lloyd*	404
K. Chandrasekharan	Classical Fourier transforms	*D. H. Griffel*	88
C. Chatfield	The analysis of time series: an introduction (4th edn)	*Neville Davies*	194
R. Christon & P. Newton	Everyday maths practice (3rd edn)	*Brian Tweed*	304
Ph. Clément, S. Invernizzi, E. Mitidieri & I. Vrabie (eds)	Semigroup theory and applications	*C. J. K. Batty*	203
R. R. Clements	Mathematical modelling: a case study approach	*J. Abram*	192
CMT, School of Education, Exeter Univ.	Maths focus (issue 1)	*Mary Robinson*	179

AUTHOR	TITLE	REVIEWER	PAGE
Daniel E. Cohen	Combinatorial group theory: a topological approach	*J. D. P. Meldrum*	396
Don Cohen	Calculus by and for young people	*Nick Lord*	73
D. W. Cohen	An introduction to Hilbert space and quantum logic	*R. L. Hudson*	418
M. J. Collins	Representations are characters of finite groups	*B. H. Denton*	412
I. Cook	Lissajous figures (SEPTIMAL report no. 3)	*Nigel Webb*	71
Julian Lowell Coolidge	The mathematics of great amateurs (2nd edn)	*W. O. Storer*	389
D. R. Cox & E. J. Snell	Analysis of binary data (2nd edn)	*John Haigh*	91
H. S. M. Coxeter	Projective geometry (2nd edn)	*Des McHale*	82
B. Dacorogna	Direct methods in the calculus of variations	*Ll. G. Chambers*	191
John Daintith & R. D. Nelson (eds)	The Penguin dictionary of mathematics	*Arthur Dodd*	394
F.-J. Delvos & W. Schempp	Boolean methods in interpolation and approximation	*Martin Buhmann*	325
John D. DePree & Charles W. Swartz	Introduction to real analysis	*K. L. McAvaney*	188
Robert L. Devaney	An introduction to chaotic dynamical systems (2nd edn)	*D. R. J. Chillingworth*	191
Shakuntala Devi (ed)	Figuring: the joy of numbers	*W. P. Richardson*	388
J. C. Diaz	Mathematics for large scale computing	*Dr. A. Iserles*	324
R. M. Dudley	Real analysis and probability	*Dr. Dave Applebaum*	84
H. Dym, S. Goldberg, P. Lancaster & M. A. Kaashoek (eds)	The Gohberg anniversary collection, Volume I and II	*S. C. Power*	328
Michel Emery	Stochastic calculus in manifolds	*James Norris*	416
Bernard d'Espagnat	Conceptual foundations of quantum mechanics	*Dr. J. E. G. Farina*	205
Bernard d'Espagnat	Reality and the physicist	*Stephen Lerman*	420
Leonard Euler	Introduction to analysis of the infinite (Book II)	*P. Shiu*	392
Kenneth Falconer	Fractal geometry: mathematical foundations and applications	*Rolf Schwarzenberger*	316
J. Fauvel, R. Flood, M. Shortland & R. Wilson (eds)	Let Newton be!—a new perspective on his life and works	*Nick Lord*	210
R. P. Feynman & S. Weinberg	Elementary particles and the law of physics (The 1986 Dirac Memorial Lectures)	*G. A. Jaroszkiewicz*	332
Benjamin Fine	Algebraic theory of the Bianchi groups	*J. E. Cremona*	196
Graham Flegg (ed)	Numbers through the ages	*Chris. Pritchard*	329

Author	Title	Reviewer	Page
J. P. Florens, M. Mouchart & J.-M. Rolin	Elements of Bayesian statistics	*D. V. Lindley*	418
A. Francis	Advanced level statistics: an integrated course (2nd edn)	*Nick Lord*	73
A. Francis	Business mathematics and statistics (2nd edn)	*L. V. Glickman*	90
L. Gårding & T. Tambour	Algebra for computer science	*Anne C. Baker*	187
Martin Gardner	Penrose tiles to trapdoor ciphers	*Arthur Dodd*	102
Martin Gardner	Whys and wherefores	*John Branfield*	103
James Gatenby	Software activities for GCSE projects	*David Green*	70
A. Geer	Skills in numeracy	*G. Habbishaw*	304
Curtis F. Gerald & Patrick O. Wheatley	Applied numerical analysis (4th edn)	*Max Planitz*	85
Robert Glen	Foundation maths: coursework and answers	*Aubrey Emerson*	68
B. V. Gnendenko & I. N. Kovalenko	Introduction to queueing theory (2nd edn)	*J. M. Carter*	409
G. H. Golub & C. F. Van Loan	Matrix computations (2nd edn)	*Dr. A. Iserles*	322
M. J. C. Gover & S. Barnett (eds)	Applications of matrix theory	*Nicholas J. Higham*	202
Thomas A. Grandine	The numerical methods programming project book	*Max Planitz*	407
Jeremy Gray	Ideas of space: Euclidean, non-Euclidean and relativistic (2nd edn)	*Ian Darke*	392
Walter Greiner	Quantum mechanics: an Introduction	*John E. G. Farina*	410
Jacky Griffin & Bob Dolden	Information technology in context	*W. Pollard*	388
Peter Griffin & Sheila Hirst	Preparing to teach equations PM753C	*Eric Door*	174
K. W. Gruenberg & J. E. Roseblade (compilers)	Collected works of Philip Hall	*J. D. P. Meldrum*	94
P. Grünbaum & G. C. Shephard	Tilings and patterns—an introduction	*Paul Garcia*	207
Niccolò Guicciardini	The development of Newtonian calculus in Britain 1700–1800	*Tony Gardiner*	331
Miguel de Guzmán	Aventures mathématiques	*Tony Gardiner*	389
Rod Haggarty	Fundamentals of mathematical analysis	*S. M. Nugent*	83
A. S. Hamilton	Linear algebra: an introduction with concurrent examples	*Tony Crilly*	400
Adam Hart-Davis	Mathematical eye	*David Whetton*	303

AUTHOR	TITLE	REVIEWER	PAGE
O. Hernandez-Lerma	Adaptive Markov control processes	*P. M. Lee*	417
P. G. Higginbotham	PCTAB: an all-purpose statistical package	*Neville Davies*	183
Rosalind Hollis	GCSE maths practice 1	*Peter Hamshere*	305
B. V. Hony & A. Ledsham	Active Mathematics Practice 1	*G. B. Attwood*	387
B. V. Hony & A. Ledsham	Active Mathematics Practice 2	*G. B. Attwood*	387
B. V. Hony & D. A. Turner	Active Mathematics Practice 3	*G. B. Attwood*	387
Peter J. F. Horril	Applied mathematics	*Ken Smith*	71
Celia Hoyles (ed)	Girls and computers	*Maurice Hart*	66
Celia Hoyles & Rosamund Sutherland	Logo mathematics in the classroom	*L. G. Thompson*	174
J. Sanchez Hubert & E. Sanchez Palencia	Vibration and coupling of continuous systems: Asymptotic methods	*Dr. N. H. Scott*	415
J. F. Humphreys & M. Y. Prest	Numbers, groups and codes	*John Baylis*	397
K. R. Imreson	The magic of number	*W. P. Richardson*	209
Bill Jacob	Linear algebra	*Alan G. Williamson*	401
N. Jacobson	Basic Algebra II (2nd edn)	*F. Gerrish*	403
Barbara Jaworski	Project mathematics UPDATE: Picturing functions PM752D	*Eric Door*	174
Clark Jeffries	Mathematical modelling in ecology	*Nick Lord*	411
L. W. Johnson, R. D. Riess & J. T. Arnold	Introduction to linear algebra (2nd edn)	*Alan G. Williamson*	81
P. T. Johnstone	Notes on logic and set theory	*Tony Gardiner*	77
Byron Jones & Michael G. Kenward	Design and analysis of cross-over trials	*G. J. G. Upton*	195
I. L. Kantor & A. S. Solodovnikov	Hypercomplex numbers	*Douglas Quadling*	399
J. N. Kapur	Fascinating world of mathematical sciences: Vol 1—the nature of mathematics	*Christopher Ash*	209
Gregory Karpilovsky	Unit groups of group rings	*B. H. Denton*	413
S. Kennewell, P. Fox, C. Mitton & I. Selwood	Computer studies through applications Teacher's resource pack	*W. F. Pollard*	308
Geoffrey Keppel & Sheldon Zedeck	Data analysis for research designs	*Pamela Morris*	194
J. Kevorkian	Partial differential equations—analytical solution techniques	*Ll. G. Chambers*	318
Dave Kirkby	Spectrum Maths: go further with investigations for the National Curriculum	*Coral Bytheway*	301

Author	Title	Reviewer	Page
Dave Kirkby	Spectrum Maths: More games for the National Curriculum	*Coral Bytheway*	302
M. S. Klamkin (compiler)	USA mathematical Olympiads 1972–1986	*Tony Gardiner*	181
Hüseyin Kocak	Differential and difference equations through computer experiments	*Dr. D. K. Arrowsmith*	83
Yusaku Komatu, Kiyoshi Niino & Chung-Chun Yang (eds)	Analytic function theory of one complex variable	*W. K. Hayman*	413
Dénes König	Theory of finite and infinite graphs	*E. Keith Lloyd*	396
A. I. Kostrikin & Y. I. Manin	Linear algebra and geometry	*Nick Lord*	401
Rainer Kress	Linear integral equations	*Alan Davies*	405
Derek F. Lawden	Elliptic functions and applications	*Nick Lord*	317
Walter Ledermann, Emlyn Lloyd, Steven Vajda & Carol Alexander (eds)	Handbook of applicable mathematics; supplement	*C. W. Kilmister*	405
R. E. Lewis & J. P. Ward	Vector analysis for engineers and scientists	*Frank Chorlton*	406
Eva Lowen-Colebunders	Function classes of Cauchy continuous maps	*Nick Lord*	99
R. H. Macmillan	Dynamics of vehicle collisions	*Edward Reeves*	180
J. S. Maritz & T. Lwin	Empirical Bayes methods (2nd edn)	*D. V. Lindley*	91
P. R. Masani	Norbert Wiener 1894–1964	*C. W. Kilmister*	393
John Mason	Dealing with decimals PM752E	*Eric Door*	174
Mathematics Centre	Practical suggestions for developing and assessing mathematics coursework	*Michael Cornelius*	301
Mathematics in Action Group	Mathematics in action: pupils' books 5A, 5B	*S. Ralls*	306
Geoffrey Matthews	Mainly on the bright side	*Michael Cornelius*	209
J. Mazumdar	An introduction to mathematical physiology and biology	*Nick Lord*	411
P. McCullagh & J. A. Nelder	Generalised linear models (2nd edn)	*Mike Baxter*	320
Ian McDonald & Ronnie MacLellan	Now try this—a progressive mathematics course for students (Red book)	*Coral Bytheway*	67
Ian McDonald & Ronnie MacLellan	Now try this—a progressive mathematics course for students (Red and yellow teacher's book)	*Coral Bytheway*	67

AUTHOR	TITLE	REVIEWER	PAGE
R. J. McEliece, R. B. Ash & C. Ash	Introduction to discrete mathematics	*John Baylis*	77
Michael Mesterson-Gibbons	A concrete approach to mathematical modelling	*John Abram*	89
MEW Group	Exploring mechanics Exploring mechanics: teacher's book	*Chris. Bishop*	309
Jane Miller	Statistics for advanced level (2nd edn)	*Alan G. Williamson*	311
Donald M. Munro	A crash course in FORTRAN 77	*Peter Harley*	75
Roy Nelson & Robin J. Wilson (eds)	Graph colourings	*Ian Anderson*	412
H. T. Nguyen & G. S. Rogers	Fundamentals of mathematical statistics: Volume 1, probability for statistics, Volume 2, statistical inference	*Rex Watson*	319
Monique Pavel	Fundamentals of pattern recognition	*Tim Porter*	100
M. Peshkin & A. Tonomura	The Aharanov-Bohm effect	*Dr. J. E. G. Farina*	419
Howard Phillips	Symbolator—the symbolic calculator for the IBM-PC	*A. Croft*	74
Tim Price	0	*Nick Lord*	333
B. Dayanand Reddy	Functional analysis and boundary-value problems: an introductory treatment	*F. B. Ellerby*	87
John Robinson	Symbolism: sculptures and tapestries	*Nick Lord*	104
B. A. Rosenfeld	The history of non-Euclidean geometry	*W. O. Storer*	203
David Ruelle	Statistical mechanics: rigorous results	*D. W. Wood*	201
T. J. Santner & D. E. Duffy	The statistical analysis of discrete data	*Pamela Morris*	410
Robert J. Schilling & Hua Lee	Engineering analysis—a vector space approach	*A. Terry Harding*	86
Scottish Mathematical Council	Mathematical challenges	*Tony Gardiner*	180
Dennis Shasha	The puzzling adventures of D. Ecco	*S. J. Abbott*	102
Chris & John Shepperd	Teach yourself study aids: GCSE mathematics	*Pam Denton*	175
A. Sherlock, E. Roebuck, M. Godfrey & J. Pickles	GCSE mathematics: SCAT 4 (structured coursework assessed tasks)	*G. B. Attwood*	176
B. D. Sleeman & R. J. Jarvis (eds)	Ordinary and partial differential equations; Volume II	*Prof. J. F. Toland*	203

Author	Title	Reviewer	Page
SMP	SMP revised advanced mathematics, book 1 (new edition)	*B. Tweed*	310
R. C. Solomon	GCSE mathematics (higher)	*Rob Summerson*	177
Donald D. Spencer	Invitation to number theory with Pascal	*M. R. Mudge*	72
H. M. Srivastava & S. Owa (eds)	Univalent functions, fractional calculus, and their applications	*Adam C. McBride*	326
Standing Conference of Principals	Colleges and institutes of higher education 1991 guide	*Nick Lord*	396
Ian Stewart	Does God play dice?	*Nick Lord*	334
Ian Stewart	Galois theory (2nd edn)	*Nick Lord*	315
John Stillwell	Mathematics and its history	*Frank Smithies*	391
J. K. Strayer	Linear programming and its applications	*Janet Dangerfield*	402
J. E. Szymanski	Basic mathematics for electronic engineers	*Ll. G. Chambers*	85
S. Vajda	Fibonacci & Lucas numbers, and the golden section: theory and applications	*Nick Lord*	313
Paul F. Velleman	Learning data analysis with Data Desk	*Derek Robinson*	407
Ernest B. Vinberg	Linear representations of groups	*Nick Lord*	199
D. K. Washburn & D. W. Crowe	Symmetries of culture	*H. C. Williams*	207
F. R. Watson	Mathematics and the micro: some activities and investigations	*D. J. Whittaker*	74
Dominic Welsh	Codes and cryptography	*John Baylis*	80
David Whetton	Structured questions for GCSE mathematics: book 2	*Nick Lord*	307
John A. Winn	Asymptotic bounds for classical Ramsey numbers	*Ian Anderson*	93
Kim Woodward & Chris Cox	Mathematics coursework 1–3	*Rob Summerson*	68
Wyvern Project Group	Aural tests in mathematics: Book 1	*S. A. Leaver*	69
Wyvern Project Group	Aural tests in mathematics: Book 4, Book 5	*Peter Ransom*	176
Wyvern Project Group	Aural tests in mathematics: books 2 and 3	*B. B. Cooper*	307
Barbara Young	Mechanics	*R. Foster*	309
A. C. Zaanan	Continuity, integration and Fourier theory	*Philip Maher*	189
	Contributions to probability and statistics: essays in honor of Ingram Olkin	*D. V. Lindley*	328

Problem corner

73.E page 236	1989	Solution; page 63
73.F page 236		Solution; page 64
73.G page 341	1989	Solution; page 171
73.H page 341		Solution; page 172
74.A page 62		Solution; page 298
74.B page 63		Solution; page 299
74.C & 74.D page 171		Solutions; page 385
74.E & 74.F page 298		Solutions in 1991 edition.
74.G & 74.H page 384		

Correspondence

		PAGE
Ian Anderson	A drive for information	173
Michael Jones	The ullage slide rule	65

In memoriam

DECEASED	AUTHOR	PAGE
Dr. G. A. Garreau	*G.T.Q.H.*	173